



National Transportation Safety Board Aviation Accident Final Report

Location:	CEDAR RAPIDS, IA	Accident Number:	MKC90FA130
Date & Time:	06/15/1990, 2230 CDT	Registration:	N67223
Aircraft:	BELL 47G-3B1	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General Aviation - - Sightseeing		

Analysis

THE HELICOPTER COLLIDED WITH THE TERRAIN AND A FENCE, SHORTLY AFTER THE PILOT TOOK OFF FROM A FAIR GROUND AT NIGHT ON A SIGHT-SEEING FLIGHT. A HOME VIDEO RECORDING OF THE TAKEOFF SHOWED AGGRESSIVE MANEUVERING OF THE HELICOPTER WITH RAPID CHANGES IN AIRCRAFT ATTITUDE, DIRECTION, AND ALTITUDE. A WITNESS REPORTED THAT AFTER TAKEOFF, THE PILOT MADE A TURN THAT 'WAS NOT SAFE,' AND THEN IT DEPARTED AT AN ALTITUDE OF ABOUT 50 FT AGL BEFORE CRASHING ABOUT 1/8 MI AWAY. ANOTHER WITNESS REPORTED THAT BEFORE THE ACCIDENT, THE HELICOPTER WAS FLYING AT LOW ALTITUDE ALONG A ROAD AND NEAR A POWER LINE. ACCORDING TO HIM, THE HELICOPTER WAS IN PROXIMITY OF THE POWER LINE, WHEN IT 'SWUNG TO THE LEFT, THEN TURNED UPSIDE DOWN AND PLOWED INTO THE GROUND.' NO PREIMPACT MECHANICAL PROBLEM WAS FOUND WITH THE AIRFRAME OR POWERPLANT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PILOT TO MAINTAIN CONTROL OF THE HELICOPTER DURING MANEUVERING FLIGHT. DARKNESS AND THE PILOT'S MANNER OF FLYING THE AIRCRAFT (OSTENTATIOUS DISPLAY) WERE CONSIDERED TO BE RELATED FACTORS.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING

Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. OBJECT - WIRE, TRANSMISSION
3. MANEUVER - INITIATED - PILOT IN COMMAND
4. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
5. (F) OSTENTATIOUS DISPLAY - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	31, Male
Airplane Rating(s):	None	Seat Occupied:	Unknown
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	11/30/1989
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	643 hours (Total, all aircraft), 173 hours (Total, this make and model), 562 hours (Pilot In Command, all aircraft), 227 hours (Last 90 days, all aircraft), 52 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N67223
Model/Series:	47G-3B1 47G-3B1	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted; Normal	Serial Number:	3471
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	05/14/1990, 100 Hour	Certified Max Gross Wt.:	2850 lbs
Time Since Last Inspection:	60 Hours	Engines:	1 Reciprocating
Airframe Total Time:	6230 Hours	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	VO-435-A1F
Registered Owner:	UNKNOWN	Rated Power:	200 hp
Operator:	BADGER HELICOPTERS, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	CID, 864 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	2150 CDT	Direction from Accident Site:	210°
Lowest Cloud Condition:	Scattered / 9000 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	22° C / 19° C
Precipitation and Obscuration:			
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	2230 CDT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	2 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	DANIEL T DUKE	Report Date:	12/15/1992
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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